

**Notice of Allowability**

Application No.

10/559,525

Examiner

Marc S. Zimmer

Applicant(s)

SHIM ET AL.

Art Unit

1796

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/06/05.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 12/06/05, 02/08/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***Allowable Subject Matter***

Applicant claims the preparation of an O/W emulsion comprising an extremely high viscosity polyorganosiloxane that entails preparing an W/O emulsion of the same followed by phase inversion at high shear in an extruder. Notably, the emulsion is devoid of any solvents other than water and those adventitious solvents still trapped in the silicone polymer. Also claimed are products obtained from said method.

The preparation of silicone O/W emulsions by the preparation of a corresponding W/O emulsion followed by phase inversion is known. See, for instance, paragraphs [0022] and [0024] of Kosal, U.S. Patent Application Publication No. 2003/0065086 and the abstract of Sakuta et al., U.S. Patent # 5,973,066. However, the viscosity of the silicone component mentioned in each of these disclosures doesn't even approach the lower limit of the viscosity range recited by the claims. Further, each of these references teaches the addition of a solvent component that is excluded by the present claims.

Another prior art disclosure of some interest is that of Horie et al., JP 10-306013. Horie teaches a method of making a polysiloxane oil-in-water emulsion that preferably employs polymers having a viscosity of 100,000,000 cst or less (bottom of page 6 of the translation), but the polymer may be any of those publically known (bottom of page 5), which would include those having a viscosity in excess of 100,000,000 cst. However, it is not clear that there is first formed a water-in-oil emulsion because the first charge of water is preferably 1-2 times that needed for phase inversion. See paragraph [0008]. This is done intentionally to avoid the disadvantageous conditions observed in prior art

methods, see paragraph [0007] where the water is added incrementally and a tremendous amount of shear is required to bring the emulsion to a stable, homogeneous state. In any case, it appears to be indicated in paragraph [0005] that a diluent such as low-viscosity PDMS or isoparaffin should be mixed with the polymer when the viscosity of the polymer to be emulsified exceeds 1,000,000. Certainly, in the Examples where a polysiloxane having a viscosity of 2,000,000 cst is used, a low-viscosity pPDMS is also added. This, of course, is contrary to the requirements of the claims insofar as they stipulate that no additional solvents shall be employed.

The Examiner could not locate a disclosure more germane to the present claims than those made of record herein. Because they fail to even render obvious the instant invention, claims 1-8 are allowable. Claims 7 and 8, though they are product-by-process claims, are still allowable given that each of the aforementioned disclosures teach a product that would have at least one solvent component that is excluded by the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 26, 2008



MARC S. ZIMMER  
PRIMARY EXAMINER